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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,988	11/18/2003	William J. Lindsey		7607

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EXAMINER

KEEFE, STEPHEN L

ART UNIT	PAPER NUMBER
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3671

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/20/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/716,988

Applicant(s)

LINDSEY, WILLIAM J.

Examiner

Stephen L. Keefe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006 and 09 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-15, 17, 18 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-15, 17, 18 and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input checked="" type="checkbox"/> Other: <u>Highway Maps</u> . |

DETAILED ACTION

Drawings

1. Figure 7 (submitted with the applicant's response dated 4/13/06) should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. Additionally, the figure must be labeled --Figure 7--. The re-submitted drawing must be labeled --Prior Art-- and --Figure 7-- in order to be approved. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 17 is objected to because of the following informalities: "bride" on page 9, line 21 should be --bridge--. Appropriate correction is required.

Response to Arguments

3. The fact that the Interstate 30 Interchange includes additional structure not required by the applicant's invention is irrelevant because the claim is set forth in "comprising" claim language instead of —consisting— or —consisting essentially— claim language. Therefore, the applicant's argument is not persuasive.

NOTE: The use of the word "comprising" does not preclude prior art having additional structure. However, the use of —consisting— or —consisting essentially— would preclude prior art having additional structure.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-15, 17, 18, and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over an existing highway interchange on Interstate 30 between Dallas and Fort Worth, TX. (hereinafter referred to as "Interstate 30 Interchange") in view of Lee (US 6,685,386).

Regarding claims 4 and 6, the Interstate 30 Interchange shown in the attached Interstate 30 (between Dallas and Fort Worth) Google Map printout discloses the features of the claimed T-interchange design, specifically comprising:

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A first road surface moving from left to right (see Interstate 30 Google Map figure)

A second road surface moving from right to left (see Interstate 30 Google Map figure)

An open space (see Interstate 30 Google Map figure)

A third road surface as recited (see Interstate 30 Google Map figure)

A bridge located on the first road surface so that vehicles traveling on the first road surface pass under (NOT over) the bridge and below (NOT above) the third road surface (see Interstate 30 Google Map figure)

An exit ramp from the second road surface onto the median and connecting onto the third road surface (see Interstate 30 Google Map figure)

The Interstate 30 Interchange has all of the necessary structure to function as a T-intersection with ramps located in the median between the first and second road surfaces; it would have been obvious to one having ordinary skill in the art at the time the invention was made to merely a portion of the third road surface of the Interstate 30 Interchange so that the third road would terminate in the median to provide an effectively functioning T-intersection.

What the Interstate 30 Interchange does not disclose is that the vehicles traveling on the first road surface pass over the bridge and above the third road surface; the bridge configured so that vehicles traveling on the third road surface pass under the bridge and under the first road surface.

However, Lee teaches that lanes may go either over or under other lanes in an interchange (see Fig. 5 where lanes 11, 13 go over the perpendicular lanes, and compare with Fig. 7 where lanes 11, 13 go under the perpendicular lanes). It would

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have been obvious to one having ordinary skill in the art at the time the invention was made to modify the bridge (as discussed with respect to claim 4 above) to be located on the third road instead of the first road (as shown in the Interstate 30 Google Map), so that vehicles traveling on the first road surface pass under the bridge, and under the third road surface, the bridge configured so that vehicles traveling on the third road surface pass over the bridge and over the first road surface, as taught by Lee, since moving the bridge to another road surface merely alters whether lanes go over or under, and Lee shows such interchangeability in the modification between Figs. 5 and 7.

Regarding claims 5 and 11, the above combination discloses an on ramp connecting the third road surface and passing through the median. As discussed above, it is obvious that the third road surface could be terminated between the first and second road surfaces, and therefore a ramp would connect with the terminated end of the third road surface. The above combination fails to disclose the on ramp connecting back onto the second road surface, but it travels parallel thereto. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the on ramp to connect onto the second road surface, since the Interchange shows them as traveling parallel to each other and in the same direction, so therefore connecting the roads would simply require adjoining them.

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Regarding claim 7, the above combination illustrates an exit ramp from the first road surface connecting onto the third road surface (see Interstate 30 Google Map figure).

Regarding claim 8, the above combination illustrates an exit ramp from the third road surface connecting onto the first road surface (see Interstate 30 Google Map figure).

Regarding claim 9, the above combination illustrates an exit ramp from the second road surface onto the median and connecting onto the third road surface (see Interstate 30 Google Map figure).

Regarding claim 10, the above combination discloses an on ramp connected from the third road surface and passing through the median. The Interchange fails to disclose the on ramp connecting back onto the second road surface, but it travels parallel thereto. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the on ramp to connect onto the second road surface, since the Interchange shows them as traveling parallel to each other and in the same direction, so therefore connecting the roads would simply require adjoining them.

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Regarding claims 12 and 24, the above combination illustrates an exit ramp from the first road surface connecting onto the third road surface (see Interstate 30 Google Map figure).

Regarding claims 13 and 23, the above combination illustrates an exit ramp from the third road surface connecting onto the first road surface (see Interstate 30 Google Map figure).

Regarding claims 14 and 21, the above combination fails to disclose a traffic signal or stop sign at the end of the third road surface substantially where the third road surface meets the second road surface. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the third road surface of the above combination to have a traffic signal substantially where it meets the second road surface, since utilizing a signal where roads meet provides added traffic safety for directing and guiding vehicles.

Regarding claims 15 and 22, the above combination fails to disclose a traffic signal or stop sign at the exit ramp substantially where the exit ramp from the second road surface meets the third road surface. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the exit ramp of the above combination to have a traffic signal substantially where the second road surface meets the third road surface, since utilizing a signal where roads meet

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provides added traffic safety for directing and guiding vehicles.

Regarding claims 17 and 25, it appears from the Interstate 30 (between Dallas and Fort Worth) Google Map figure that the first surface must have an "up ramp" and "down ramp" since it appears to travel over the third road surface.

Regarding claim 18, the above combination fails to disclose the bridge as being arched with Brownstone color and texture. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the style and material of the bridge on the Interstate 30 Interchange to be arched and a Brownstone in color and texture, since these are merely aesthetic features which can be modified to the taste and liking of the desired design, and do not affect the function of the structure.

Regarding claim 26, the above combination fails to disclose a traffic signal or stop sign at the end of the third road surface substantially where the third road surface meets the second road surface. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the third road surface of the above combination to have a traffic signal substantially where it meets the second road surface, since utilizing a signal where roads meets provides added traffic safety for directing and guiding vehicles. The above combination also fails to disclose a traffic signal or stop sign at the exit ramp substantially where the exit ramp from the second road surface meets the third road surface. It would have been obvious to one having

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ordinary skill in the art at the time the invention was made to modify the exit ramp of the above combination to have a traffic signal substantially where the second road surface meets the third road surface, since utilizing a signal where roads meet provides added traffic safety for directing and guiding vehicles.

5. Claims 4-13, 17-18, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Interstate 30 Interchange in view of International Parkway passing through the Dallas/Fort Worth International Airport (hereinafter referred to as "International Parkway").

Regarding claims 4, 6, and 9, as discussed above, the Interstate 30 Interchange discloses features of the claimed T-interchange design, specifically comprising:

A first road surface moving from left to right (see Interstate 30 Google Map figure)

A second road surface moving from right to left (see Interstate 30 Google Map figure)

An open space (see Interstate 30 Google Map figure)

A third road surface as recited (see Interstate 30 Google Map figure)

A bridge located on the first road surface so that vehicles traveling on the first road surface pass under (NOT over) the bridge and below (NOT above) the third road surface (see Interstate 30 Google Map figure)

An exit ramp from the second road surface onto the median and connecting onto the third road surface (see Interstate 30 Google Map figure)

The Interstate 30 Interchange fails to disclose a T-interchange CONSISTING of, in addition to the above elements, a third road surface having a terminated end that is

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located within the median between the first road surface and the second road surface.

The Interstate 30 Interchange also fails to disclose that the vehicles traveling on the first road surface pass over the bridge and above the third road surface; the bridge configured so that vehicles traveling on the third road surface pass under the bridge and under the first road surface.

However, International Parkway teaches that for a T-intersection a third road surface may have a terminated end that is located within the median between the first road surface and the second road surface (see the International Parkway figures). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Interstate 30 Interchange to have the third road terminate in the median, as taught by International Parkway, to take advantage of utilizing a wide highway median in providing ramps for a T-interchange.

International Parkway also teaches, for an intersection, that a third road running perpendicular to first and second multiple lane road surfaces may cross UNDER the first and second multiple lane road surfaces (see the International Parkway figures). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Interstate 30 Interchange to have the third road cross UNDER the first and second roads, as taught by International Parkway, to take advantage of utilizing a wide highway median between a first and second road surface.

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Regarding claims 5, 7-8, and 10-11, the Interstate 30 Interchange discloses an on ramp connecting the third road surface and passing through the median. As discussed above, it is obvious that the third road surface could be terminated between the first and second road surfaces, and therefore a ramp would connect with the terminated end of the third road surface. The above combination discloses an on ramp connecting the 3rd road surface to the 1st road surface and an off ramp connecting the 2nd road surface to the 3rd road surface. Other combinations for connection are similar and obvious.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ramp connections passing through the median of the above combination to connect any possible combination of road surfaces to take advantage of utilizing a wide highway median in providing ramps for a T-interchange.

Regarding claims 12 and 24, the above combination illustrates an exit ramp from the first road surface connecting onto the third road surface (see Interstate 30 Google Map figure).

Regarding claims 13 and 23, the above combination illustrates an exit ramp from the third road surface connecting onto the first road surface (see Interstate 30 Google Map figure).

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Regarding claims 17 and 25, it appears from the Interstate 30 (between Dallas and Fort Worth) Google Map figure that the first surface must have an "up ramp" and "down ramp" since it appears to travel over the third road surface.

Regarding claim 18, the above combination fails to disclose the bridge as being arched with Brownstone color and texture. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the style and material of the bridge on the Interstate 30 Interchange to be arched and a Brownstone in color and texture, since these are merely aesthetic features which can be modified to the taste and liking of the desired design, and do not affect the function of the structure.

6. Claims 14, 15, 21, 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Interstate 30 Interchange and International Parkway, further in view of the Interstate 94 Interchange in Detroit (hereinafter referred to as "Interstate 94 Interchange").

The above combination discloses that the exit ramp of the second road surface meets the terminated end of the third surface.

What the above combination does not disclose is that a stop sign or traffic signal may be located either where the third road surface meets the exit ramp of the second road surface or where the exit ramp from the second road surface meets the terminated end of the third road surface.

However, the Interstate 94 Interchange teaches that, for a third multiple lane road surface crossing perpendicularly over two multiple lane road surfaces (with a ramp in the median connecting the third road surface with another road surface), vehicles may be stopped at multiple locations, including at where the ramp meets the third road surface. It is obvious from the painted white "stop line" in the figure that either stop signs or traffic signals could be employed (see the Interstate 94 Interchange figures). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ramp connections passing through the median of the above combination to make use of stop signs or traffic lights as taught by the Interstate 94 Interchange to control traffic on a T-intersection making use of median ramps between two road surfaces.

Conclusion

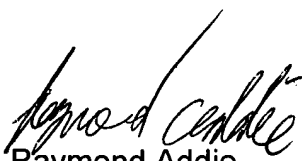
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Henry Hudson Parkway & Dyckman Street interchange in New York City, I-495/I-95 & Eisenhower Avenue interchange near Washington D.C., Shore Parkway & Erskine Street interchange on Long Island, NY provide additional concepts for T-intersections.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen L. Keefe whose telephone number is 571-272-5652. The examiner can normally be reached on 8:00 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Raymond Addie
Primary Examiner
Group 3600

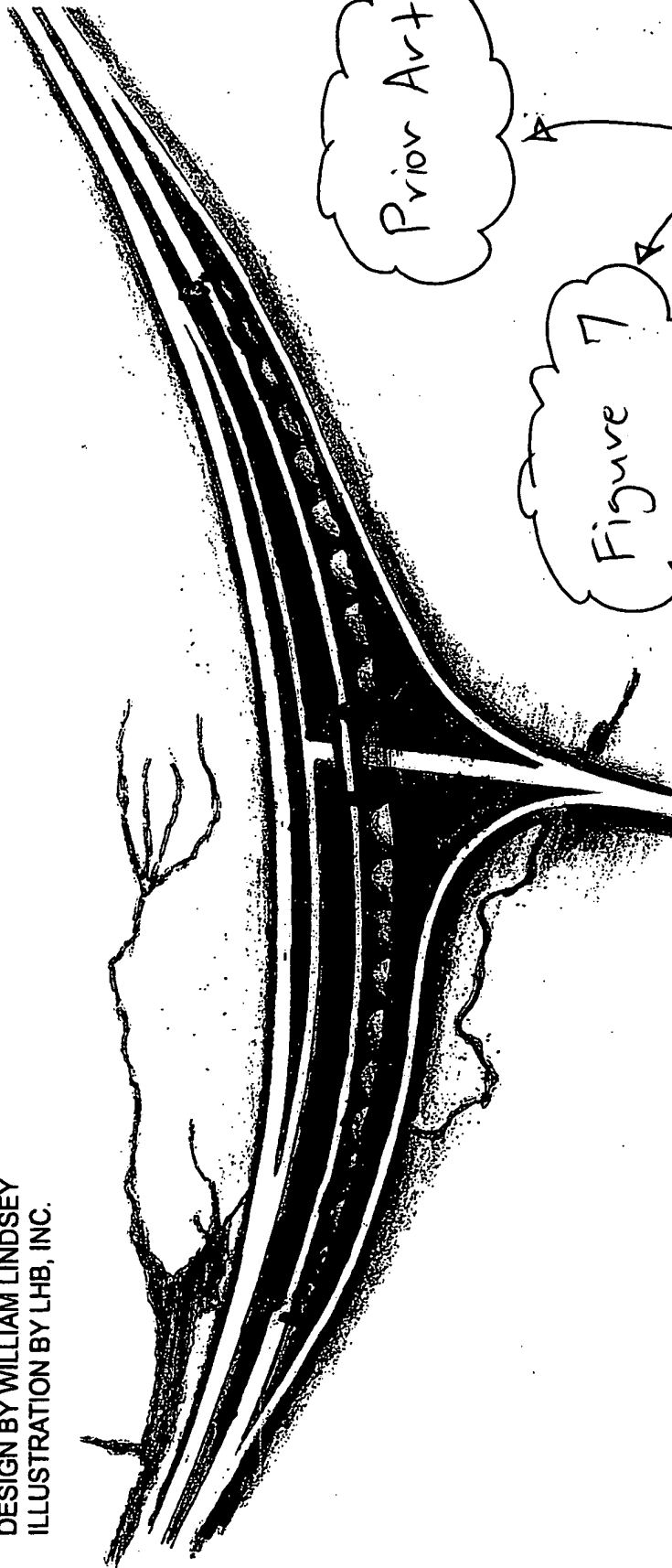
SLK
11/30/06



SIMPLIFIED "T" INTERCHANGE DESIGN

ILLUSTRATED FOR THE
"T" INTERSECTION AT U.S. HWY #2
AND WISCONSIN HWY #13 IN BAYFIELD
COUNTY, WISCONSIN

DESIGN BY WILLIAM LINDSEY
ILLUSTRATION BY LHB, INC.



Prior Art

A

Figure 7

A

THESE
LABELS ARE
REQUIRED IN
THE RESUBMITTAL

NOT APPROVED

02-17-05